

ABSTRACT

An implantable beneficial agent infusion device featuring a unique energy recovery circuit and a deflectable energy storing member such as a piezo-electric membrane is disclosed. The circuit and deflectable energy storing member cooperate to permit electrical energy employed to activate the member to be at least partially recovered. In a preferred embodiment, the deflectable energy storing member is connected to a seal which is opened to permit the delivery or infusion of a pre-determined amount of a beneficial agent to a patient when the member is deflected or actuated through the application of a sufficiently high voltage thereacross. Charge stored on or in the deflectable energy storing member as a result of the voltage being applied thereacross is recovered by a novel circuit when the deflectable energy storing membrane is permitted to return to its non-actuated state or position.